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REMARKS

This reply is in response to the Office Action dated April 5, 2006.

Claims 1-4 and 7-33 are pending in the application and claims 1-4, 7-16, 20 and 23-33 stand rejected. Claims 17-19, 21 and 22 have been withdrawn from consideration by the Examiner.

Entry of the foregoing amendment and reconsideration of the claims is respectfully requested.

The Office Action Summary sheet shows claims 1-4 and 7-33 are subject to restriction and/or election requirement (box 8); however, the Examiner makes no mention of such a restriction in the Office Action. Clarification of the record is respectfully requested.

Rejection under 35 USC § 112, first paragraph

Claims 23-33 stand rejected under 35 U.S.C. § 112, first paragraph.

Amended Claim 23 is directed to bifunctional catalysts, wherein two of the catalysts in the composition have different Group 4 metals. The Examiner suggests that the formulae in claim 23 should be limited to Group 4 metals because the formulae require that the metal be in the plus 4 oxidation state and Groups 3 and 5-10 cannot provide metals in the plus 4 oxidation state. Applicant respectfully disagrees. Groups 3 to 10 metals can be found in many different oxidation states, and other group elements can catalyst olefins in the plus 4 state. However in the interest of facilitating prosecution Applicant has amended claim 23 to Group 4. Withdrawal of the rejections is respectfully requested.

Amended Claims 23 to 29 are directed to bifunctional catalysts wherein two of the catalysts in the composition have different Group 4 metals (claim 23) or catalysts containing a J group (claims 24 to 29). The Examiner suggests that the formulae in claims 23 to 29 should be limited to Group 4 metals because the formulae require that the metal be in the plus 4 oxidation state and Groups 3 to 10 cannot provide metals in the plus 4 oxidation state. Applicant respectfully disagrees. Groups 3 to 10 metals can be found in many different oxidation states, and elements other than Group 4 can catalyze olefins in the plus 4 state. However in the interest

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of facilitating prosecution Applicant has amended claims 23 ad 24 to Group 4. Withdrawal of the rejection is respectfully requested.

Claims 30 to 33 are directed towards certain compositions having catalyst precursors containing metals from groups 3 or 5 to 10. The Examiner suggests that the formulae in claims 23 to 29 should be limited to Group 4 metals because the formulae require that the metal be in the plus 4 oxidation state and Groups 3 to 10 cannot provide metals in the plus 4 oxidation state. Applicant respectfully disagrees. Groups 3 to 10 metals can be found in many different oxidation states, and elements other than Group 4 can catalyze olefins in the plus 4 state. In light of the above, withdrawal of the rejection is respectfully requested.

Rejection under 35 USC § 101

Claims 23-33 stand rejected under 35 USC § 101 as inoperative and therefore lacking utility because the Examiner suggests that the formulae in claims 23 to 33 require that the metal be in the plus 4 oxidation state and Groups 3 to 10 cannot provide metals in the plus 4 oxidation state.

With regard to claims 23-29, Applicant has amended the claims to Group 4. Withdrawal of the rejection is requested.

With regard to claims 30 to 33, Applicant respectfully disagrees. Groups 3 to 10 metals can be found in many different oxidation states, and elements other than Group 4 can catalyze olefins in the plus 4 state. In light of the above, withdrawal of the rejection is respectfully requested.

Rejection under 35 USC § 112, Second Paragraph.

Claims 1, 2, 3 and 23-33 stand rejected under 35 U.S.C. § 112, second paragraph. Applicant has amended the claims according to the Examiner's suggestions, obviating the rejection. Withdrawal of the rejection is respectfully requested.

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Objections to claims 1 11, 12 and 20.

Claims 1, 11, 12 and 20 stand objected to because of certain informalities noted by the Examiner. Applicant has amended claims 1, 11, and 12 as suggested by the Examiner, obviating the objections with respect to those claims. Regarding claim 20, Applicant respectfully disagrees. The use of "TM" is not confusing when read in light of the specification. No person of ordinary skill in the art would confuse "TM" in the chemical structure recited in claim 20 for a trademark designation. Further, the "TM" is clearly defined in the claim as titanium. Regarding the use of "Pn" in the claim 20, Applicant is allowed to be his/her own lexicographer. The term "Pn" is clearly and unambiguously defined in the claim as a Group 14-15 atom. Therefore, there is no confusion over the meaning of Pn in the claims. Regarding R and R' in claims 1 and 20, Applicant has amended claim 20 to be more clear. Withdrawal of the objection is respectfully requested.

Rejection of claims 1-4, 7-16, 20 and 23 under 35 USC § 102(b)

Claims 1-4, 7-16, 20 and 23 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Chinese Patent No. 1352204A hereafter "Jin." Applicant respectfully traverses the rejection on grounds that Jin is not prior art as evidenced by the attached 35 U.S.C. § 131 affidavit. Accordingly, withdrawal of the rejection and allowance of the claims is respectfully requested.

Rejection under 35 USC § 102(b)

Claims 23-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jin as cited above in view of Chabrand et al. (U.S. Patent No. 5,714,425; hereafter "Chabrand").

Applicant respectfully traverses the rejection. As stated above, Jin is not prior art to the claimed invention, and Chabrand alone does not teach, show or suggest the claimed invention. Specifically, Chabrand does not disclose the free radical polymerization of the catalyst precursor with a free radical polymerizable monomer to produce a supported catalysts. In fact Chabrand's catalysts are supported on silica. Chabrand instead merely discloses that silica supported metallocenes with pendent unsaturations on the Cp rings are useful to polymerize certain olefins.

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It is clear from reading Chabrand's entire specification that Chabrand does not contemplate, suggest or disclose Applicant's claimed invention. Withdrawal of the rejection and allowance of the claims is respectfully requested.

Rejection of claims 23, 30 to 33 under 35 USC § 102(b)

Claims 23 and 30-33 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Antberg (U.S. Patent No. 5,169,818; hereafter "Antberg"). Applicant respectfully disagrees and submits that Antberg does not teach, show or suggest the claimed invention. Antberg discloses catalyst systems containing zirconocenes or hafnocenes, not a combination of both or a combination with any other metal containing catalyst system. See, Antberg at col. 1, ll. 67-67 and at col. 2. As such, Antberg does not teach, show or suggest two or more catalyst precursors each have a different Group 4 metal, as required in claim 23. With respect to claims 30 to 33, Antberg also fails to disclose or suggest the limitations wherein the catalysts in the composition have Group 3 or 5 to 10 metals, but not Group 4 metals. Antberg does not disclose metals in groups 3 or 5 to 10, and thus does not anticipate the claimed invention. Withdrawal of the rejection and allowance of the claims is respectfully requested.

Rejection of Claims 1-4, 7-16 and 20 under 35 U.S.C. § 103(a)

Claims 1-4, 7-16 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Antberg in view of Jin. Applicant respectfully traverses the rejection. As stated above, Jin is not prior art to the claimed invention and as admitted by the Examiner, Antberg does not disclose "the range of metal presently claimed." Accordingly, Antberg does not teach, show or suggest the claimed invention. Withdrawal of the rejection and allowance of the claims is respectfully requested.

Having addressed all issues set out in the office action, Applicant respectfully submits that the pending claims are now in condition for allowance. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been

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addressed to the Examiner's satisfaction. A petition for extension of time for filing this response is attached; however, in the event that petition becomes separated from this Response, the Commissioner is hereby authorized to charge counsel's Deposit Account No. 05-1712, for any fees, including extension of time fees and excess claim fees, required to make this response timely and acceptable to the Office.

Respectfully submitted,

8/26/06
Date

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Enclosure: Affidavit under 37 CFR 1.132

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